



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,429	07/03/2001	Robert J. Hales	H0630.0003/P003	8337
44312	7590	10/18/2005	EXAMINER	
BERGMAN KUTA LLP			PROCTOR, JASON SCOTT	
P. O. BOX 400167			ART UNIT	
CAMBRIDGE, MA 02140			PAPER NUMBER	
			2123	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/897,429	Applicant(s) HALES, ROBERT J.	
	Examiner Jason Proctor	Art Unit 2123	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/27/05</u> . | 6) <input checked="" type="checkbox"/> Other: <u>1.105 Requirement</u> .                |

Art Unit: 2123

### **DETAILED ACTION**

Claims 1-27 were rejected in the previous office action. Applicants' response on 27 July 2005 has cancelled claim 2, amended claims 3 and 9, and presented new claims 28-30. Claims 1 and 3-30 are pending in the application. Claims 1 and 3-30 have been rejected.

#### ***Priority***

Applicant's claim for domestic priority under 35 U.S.C. § 119(e) is acknowledged. The Examiner thanks Applicants for clarifying where support for the claims is found.

Applicants have submitted that that:

Support is believed to exist in the '303 and '040 applications for each of the now-pending claims. [...] Thus, it is believed that enabling support is found in the '303 application for claim 10, and for the same or similar reasons the '303 and '040 applications are believed to fully support the balance of the now-pending claims.

Applicants' arguments have established that the '303 and '040 application fully support the pending claims.

#### ***Specification, Claim, and Drawing Objections***

The Examiner thanks Applicants for amending the specification, claims, and drawings in response to the objections of the previous office action. Those objections have been withdrawn.

#### ***Claim Rejections - 35 U.S.C. § 101***

In the previous office action, claims 1-2, 4-12, and 27 were rejected as nonstatutory relying upon MPEP 2105. This rejection has been withdrawn. Claims 1 and 4-12 are rejected again under 35

Art Unit: 2123

U.S.C. § 101 as nonstatutory, however this action is being made non-final to afford Applicants an opportunity to address this new rejection. The Examiner apologizes for any inconvenience.

The rejections of claims 18-20 and 27 under 35 U.S.C. § 101 have been withdrawn in light of Applicants' arguments.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1, 3, and 5-12 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

The language of independent claim 1 recites a method that may be performed by a human being and is not directed to the technological arts. Although the claims recite the term "database", this term is subject to interpretation. The claim does not recite, for example, a "computer database" or a "computerized database management system", both of which explicitly refer to a technological implementation.

IEEE 100, The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, provides the following definitions for the term *database*:

**database (1) (A)** A collection of logically related data stored together in one or more computerized files.  
**database (2)** A collection of data fundamental to a system.

A telephone book is a collection of data fundamental to the telephone system and therefore constitutes a database. Similarly, a grocery shopping list is a collection of data fundamental to a trip to the grocery store and therefore constitutes a grocery shopping database. However, neither a telephone book nor a grocery shopping list are a "computerized database management system".

Art Unit: 2123

The language of the claim is not restricted to a computerized implementation but rather to “a collection of data fundamental to a system”.

Further, the claim language recites a list of abstract, intangible steps that fail to produce a useful, concrete, and tangible result. MPEP 2106(II)(A) reads as follows:

The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Abstract intangible steps such as “associating”, “selecting”, and “reading” do not define a statutory process under 35 U.S.C. § 101. The method of claim 1 does not produce a useful, concrete, and tangible result. The method of claim 1 produces an intangible “association” between two abstractions – an “attribute” and a “planned deployment”.

Of the dependent claims, only claim 4 recites a limitation that renders the claimed invention statutory. Claim 4 positively recites a useful, concrete, and tangible result for the method.

The Examiner does not challenge that a particular interpretation of the claim language could be statutory. However, the claim language is not restricted to a statutory interpretation, which necessitates this rejection. The Examiner respectfully suggests that Applicants consider claim language that restricts the broadest reasonable interpretation of claim 1 to a computer-implemented method.

Regarding reliance upon the broadest reasonable interpretation in determining whether the claimed invention is statutory under 35 U.S.C. § 101, MPEP 2111 reads as follows:

Art Unit: 2123

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) (Claim 9 was directed to a process of analyzing data generated by mass spectrographic analysis of a gas. The process comprised selecting the data to be analyzed by subjecting the data to a mathematical manipulation. The examiner made rejections under 35 U.S.C. 101 and 102. In the 35 U.S.C. 102 rejection, the examiner explained that the claim was anticipated by a mental process augmented by pencil and paper markings. The court agreed that the claim was not limited to using a machine to carry out the process since the claim did not explicitly set forth the machine. The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim, to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.

Claims 1, 3, and 5-12 are abstract and do not define a statutory process and are therefore directed to nonstatutory subject matter.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. § 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

### ***Claim Rejections - 35 U.S.C. § 112***

The Examiner thanks Applicants for addressing the previous rejections under 35 U.S.C. § 112.

Those rejections have been withdrawn. Specifically regarding claim 13, the previous rejection has been withdrawn in light of Applicants' clarification, which states:

One of skill in the art would readily appreciate that the meaning of the term "substantially instantaneously identical" reflects the context of the system in which the term is used. Thus for example where data is mirrored on two servers, as a practical matter, the same data is available to users of both servers on a timeframe that is otherwise compatible with system operation. As such, one of skill in the art would understand the subject claim limitation without the expression of an absolute time span.

Applicants' clarification of the term "substantially instantaneously identical" has provided definite metes and bounds for the claim language.

Art Unit: 2123

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3-30 are rejected under 35 U.S.C. 102(b) as being anticipated by “CADDStar Version 5.0 Help Manual” and/or “CADDStar Version 3.81 Help Manual”.

The date that CADDStar Version 5.0 and Version 3.81 were first offered for sale is asserted to be prior to 20 September 1999 based on the U.S. Copyright Office record for “CADDStar HFC 6.0”, which was published on 2 November 1999. The Examiner asserts that CADDStar Version 5.0 was offered for sale for more than the 43 days prior to the copyright date of CADDStar HFC 6.0 and therefore constitutes prior art under 35 U.S.C. § 102(b), presuming Applicants attain the earliest priority date of U.S. Provisional Patent Application 60/234,303. The Examiner further asserts that CADDStar Version 3.81 was offered for sale prior to 20 September 1999. The Examiner further notes that “CADDStar 5.0 Help Manual”, page 17 overall, depicts a computer file listing wherein the computer files are dated May and June 1998. Applicants are encouraged to provide evidence of the date of first sale for CADDStar Version 3.81 and Version 5.0 to refute the Examiner’s assertion.

The Examiner thanks Applicants for providing copies of “CADDStar 5.0 Help Manual” and “CADDStar Version 3.81 Help Manual”. The Examiner notes that “CADDStar 5.0 Help Manual” appears to contain identical subject matter to Provisional Application 60/236,040, minus appendices. Applicants have provided “CADDStar 5.0 Help Manual” and “CADDStar



Art Unit: 2123

3.81 Help Manual” without publication dates, table of contents, or index. These references amount to a combined 571 pages, which, in combination with the lack of table of contents or index, interferes with the Examiner’s ability to specifically, identify those portions that teach the claimed limitations. However, as Applicants are required to be knowledgeable in their own publications, the Examiner thanks Applicants for their cooperation regarding the specific citations.

CADDStar Version 5.0 and/or CADDStar Version 3.81 anticipate each limitation of claims 1-30 for which the instant application and the related Provisional applications provide enablement and written description in compliance with 35 U.S.C. § 112, first paragraph. Further evidence that CADDStar Version 5.0 anticipates each limitation of claims 1-30 are Applicants’ arguments submitted on 27 July 2005:

Support is believed to exist in the ‘303 and ‘040 applications for each of the now-pending claims. [...] Thus, it is believed that enabling support is found in the ‘303 application for claim 10, and for the same or similar reasons the ‘303 and ‘040 applications are believed to fully support the balance of the now-pending claims.

The Examiner thanks Applicants for this clarification, however the ‘040 application, as indicated above, appears to contain identical subject matter to “CADDStar 5.0 Help Manual” and constitutes prior art under 35 U.S.C. § 102(b). Therefore it appears that the provisional application ‘040 constitutes prior art under 35 U.S.C. § 102(b), and as argued by Applicants, provides enabling disclosure for each pending claim and therefore anticipates each pending claim.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-9, 12, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport et al. US Patent No. 6,499,006 hereafter referred to as Rappaport.

Regarding claim 1, Rappaport teaches a method for designing a network comprising:

Storing an attribute of a communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Reading the attribute from the database entry (column 6, lines 40-44); and

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35).

Although Rappaport does not explicitly refer to a planned deployment of the network being designed, it would be obvious to a person of ordinary skill in the art at the time of Applicant's invention that the disclosed invention, a network design tool, would be a useful part of deploying the network once it is designed.

Although the invention disclosed by Rappaport teaches a wireless network design tool, Rappaport does teach that the disclosed method is adaptable to other technologies (column 10,

Art Unit: 2123

line 53-column 11, line 6). It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention, in combination with his own knowledge of the particular art, to adapt Rappaport's invention for use with a fiber optical communication network in order to design and deploy a fiber optical communication network. The combination could easily be achieved by including fiber optical communication network components in the computer parts database taught by Rappaport (column 6, lines 36-60) and implementing the requisite placement and connection rules in the user interface.

In response, Applicants argue primarily that:

Applicant respectfully notes that there is nothing in the art now of record to teach or suggest the claim limitations of "associating a catalog database entry with a design profile." [...] There is nothing, however, in the discussion of Rappaport to teach or suggest "storing an attribute of an optical communication component in a catalog database entry [and] associating said catalog database entry with a design profile."

In addition, it is conceded in the Office Action that Rappaport teaches a wireless network design tool as opposed to the claimed invention.

Applicants' argument makes reference to portions of Rappaport cited in the rejection, specifically column 4, lines 46-50, column 6, lines 36-60, and column 8, lines 23-35.

The Examiner respectfully traverses this argument as follows.

Regarding the issue of optical communication components, Rappaport expressly discloses a list of components in the network [*"The resulting interconnected network of base station transceivers, cabling, connectors/splitters, amplifiers, antennas, and other RF hardware components"* (column 6, lines 48-60)] that alone would render the inclusion of fiber optical communication components obvious to a person of ordinary skill in the art. Although Rappaport is primarily concerned with RF propagation, a person of ordinary skill in the art would recognize that in this section, Rappaport is not disclosing "RF cabling" or "RF connectors/splitters", but

Art Unit: 2123

rather cabling and connectors/splitters from a different communication medium. As fiber optic communication components are known in the art, it would have been obvious to a person of ordinary skill that Rappaport is disclosing cabling and connectors/splitters from the prior art, such as fiber optic cabling and fiber optic connectors/splitters.

Rappaport at column 4, lines 46-50 reads as follows:

A variety of amplifiers, cables, connectors, and other hardware devices may be selected, positioned, and interconnected in a similar fashion by the designer to form representations of complete wireless communications systems.

Rappaport at column 6, lines 36-60 reads, in part, as follows:

This point-and-click process involves the user selecting the desired hardware component from a computer parts database and then visually positioning, orienting, and interconnecting various hardware components within the 3-D environmental database to form complete wireless communication systems. The preferred embodiment of the computer parts database, referred to hereinafter as a parts list library, is more fully described in co-pending application Ser. No. 09/318,842 filed on May 26, 1999.

The limitation of “associating a catalog database entry with a design profile” is at least taught by these portions of Rappaport. As disclosed by Rappaport, the user selects hardware components from a “computer parts database”, which teaches “a catalog database”. The user “selects, positions, and interconnects” the hardware devices, which clearly teaches the broadly recited step of “associating”. The result of this process unambiguously teaches an “association” between parts from the database and “representations of complete wireless communication systems” or “a design profile”.

The Examiner is aware of no statement in the previous office action that Rappaport “teaches a wireless network design tool as opposed to the claimed invention.” The previous office action acknowledges that Rappaport teaches a wireless network design tool within the

Art Unit: 2123

body of a rejection under 35 U.S.C. § 103(a). The Examiner respectfully apologizes if the previous rejection was unclear, however maintains that Rappaport renders the claimed invention obvious.

Rappaport at least suggests the limitations of “storing an attribute of an optical communication component in a catalog database entry [and] associating said catalog database entry with a design profile.” Applicants’ arguments have been fully considered but have been found unpersuasive.

Regarding claim 3, Rappaport teaches a computer-implemented method (column 4, lines 33-50) and recording associations in a computer database (column 6, lines 40-49).

Regarding claim 4, Rappaport does not explicitly teach physically deploying a physical instance of the component. However, Rappaport does teach a network design tool (column 5, lines 57-65; column 8, lines 23-35) and therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to physically deploy the network after it has been designed.

Regarding claims 5 and 6, Rappaport teaches identifying a geographic location for the network and displaying a graphical representation of the geographic location (column 4, lines 3-9; column 4, lines 33-38; column 8, lines 44-57).

Regarding claims 7-9 and 12, Rappaport does not explicitly teach components selected from the recited group, however the rejection formed in the rejection of claim 1 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

Regarding claim 27, Rappaport teaches a method for designing a network comprising:

Defining a land base map (column 8, lines 44-56);

Defining a plurality of network component including cable segments (column 6, lines 36 – 54);

Associating each component with a location in the land base (column 6, lines 36-54);

Associating the first components with the second components (column 6, lines 36-54);

Calculating signal loss through the components (column 7, lines 11-48); and

Displaying the land base map and signal loss calculation result (Figs. 6-9; column 7, lines 11-48).

Although the invention disclosed by Rappaport teaches a wireless network design tool, Rappaport does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6). It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention, in combination with his own knowledge of the particular art, to adapt Rappaport's invention for use with a fiber optical communication network in order to design and deploy a fiber optical communication network. The combination could easily be

Art Unit: 2123

achieved by including fiber optical communication network components in the computer parts database taught by Rappaport (column 6, lines 36-60) and implementing the requisite placement and connection rules in the user interface.

In response, Applicants' argue primarily that:

Applicant respectfully submits that the language of column 10 and 11, whether taken alone or in combination with the references now of record, does not provide any enabling disclosure of the claimed invention. The portion of Rappaport relied upon by the Office Action states: [quotation omitted].

Thus, there is nothing in this Rappaport to teach or suggest "[a] method of modeling a fiber optic communication network comprising...defining...a second plurality of optical cable segments [and] calculating signal loss through at least one segment of said second plurality, (emphasis added)."

The Examiner respectfully traverses this argument as follows.

Rappaport expressly discloses a list of components in the network [ "*The resulting interconnected network of base station transceivers, cabling, connectors/splitters, amplifiers, antennas, and other RF hardware components*" (column 6, lines 48-60)] that alone would render the inclusion of fiber optical communication components obvious to a person of ordinary skill in the art. Although Rappaport is primarily concerned with RF propagation, a person of ordinary skill in the art would recognize that in this section, Rappaport is not disclosing "RF cabling" or "RF connectors/splitters", but rather cabling and connectors/splitters from a different communication medium. As fiber optic communication components are known in the art, it would have been obvious to a person of ordinary skill that Rappaport is disclosing cabling and connectors/splitters from the prior art, such as fiber optic cabling and fiber optic connectors/splitters. Rappaport is clearly concerned with and teaches signal loss in a communication network (abstract).

Art Unit: 2123

Regarding Applicants' allegation that Rappaport does not provide enabling disclosure, the Examiner respectfully submits that MPEP 2121 instructs that the prior art is presumed enabling until Applicants provide facts to the contrary. Applicants' allegation that Rappaport does not provide enabling disclosure is unpersuasive.

Applicants' arguments have been fully considered but have been found unpersuasive.

4. Claims 10-11 and 21-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport as applied to claim 1 above, and further in view of Bergholm et al. US Patent No. 5,761,432 hereafter referred to as Bergholm.

Regarding claims 10 and 11, Rappaport does not explicitly teach identification of network components with an owner or with a communication circuit.

Bergholm teaches a method for network administration and design (column 2, lines 39-63) wherein network components (exemplified by links) are identified as belonging to circuits (network hierarchy) and have attributes such as ownership (column 4, lines 13-24).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to tie inventory management, order management, and design management with an attribute design database system (Bergholm, column 1, lines 55-67) with the network design method and system taught by Rappaport. This combination allows Rappaport's network design tool to apprise network builders of inventory information and designing links to implement orders (Bergholm, column 1, lines 55-67). The combination could be achieved by including ownership and circuit attributes in the network



design method taught by Rappaport, and specifically where the user modifies the properties of network components (column 8, lines 23-35).

In response, Applicants have submitted arguments that rely upon the propriety of the rejection of claim 1 which has been addressed above. Applicants' arguments regarding claims 10 and 11 have been fully considered but have been found unpersuasive.

Regarding claim 21, Rappaport teaches a software method for designing a network comprising:

Storing an attribute of a communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Reading the attribute from the database entry (column 6, lines 40-44);

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not teach a system of computers including a first and second computer connected through a communications link and sharing the logical model through the link.

Bergholm teaches a system of computers including a client server architecture including a central server coupled to a plurality of workstations (column 14, lines 14-45). Bergholm teaches that the server stores application software (column 14, lines 57-60).

Art Unit: 2123

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the software method for designing a network taught by Rappaport with the client server architecture taught by Bergholm to produce a software method with improved ease of access for plural designers. The combination could be achieved by implementing the software method taught by Rappaport using a central computer components database and transmitting the logical model through the network.

Although Rappaport does not explicitly refer to a operatively connecting the cables of the modeled network, it would be obvious to a person of ordinary skill in the art at the time of Applicant's invention that the disclosed invention, a network design tool, would be a useful part of deploying the network once it is designed.

In response, Applicants argue primarily that:

Applicant respectfully notes the rejection of claim 21 appears to be based upon limitations not found in claim 21 as presented.

The Examiner respectfully traverses this argument as follows.

Applicants' response regarding claim 21 does not specifically points out the supposed errors in the Examiner's action. Further, Applicants' response regarding claim 21 consists of a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claim patentably distinguishes it from the references. Both of these are required under 37 CFR 1.111(b).

Although mapping specific claim limitations to the reference is often performed for Applicants' convenience, there is no requirement to do so in the MPEP. Claim 21 appears to present limitations which have been addressed previously or limitations which are readily

Art Unit: 2123

apparent from the Rappaport reference. While the Examiner's rejection may not conform verbatim to the claim language, the Examiner maintains that the references cited render the claimed invention obvious.

The Examiner respectfully suggests that Applicants' positively identify the limitations that they believe are neither disclosed nor rendered obvious by Rappaport in view of Bergholm. Applicants' arguments have been fully considered but have been found unpersuasive.

Regarding claim 22, neither Rappaport nor Bergholm explicitly teach a step of transmitting a notice of completion of the connection of physical cables through the link into the first computer. However, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention in combination with his own knowledge of the particular art to relay such information through a connection in order to notify a user at a remote workstation of a change in the status of the network. Such a feature could be achieved with electronic mail.

Regarding claim 23, Rappaport teaches modifying the graphically represented logical model (column 6, lines 36-48). Bergholm teaches a client server architecture where a logical model of a network can be modified and transmitted through a network (column 3, lines 6-14; column 14, lines 14-45). This combination is established in the rejection of claim 21 above.

Neither Rappaport nor Bergholm explicitly teach receiving authorization for operatively connecting two communication cables, however it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention in combination with his own knowledge of the particular art to relay such information through a connection in order to notify

Art Unit: 2123

a user at a remote workstation of authorization to change the status of the network. Such a feature could be achieved with electronic mail.

Regarding claim 24, Rappaport teaches characterizing the signal strength of a radio frequency signal

Regarding claims 25 and 26, Rappaport teaches a software method for designing a network comprising:

Storing an attribute of a communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Reading the attribute from the database entry (column 6, lines 40-44);

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not teach a system of computers including a first and second computer, the second being a laptop, connected through a communications link and sharing the logical model through the link.

Bergholm teaches a system of computers including a client server architecture including a central server coupled to a plurality of workstations (column 14, lines 14-45). Bergholm teaches

Art Unit: 2123

that the server stores application software (column 14, lines 57-60). Bergholm refers to the server as a “central site” and describes an alternative configuration with “work group sites” (column 14, lines 22-45).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to combine the software method for designing a network taught by Rappaport with the client server architecture, including laptop computers, taught by Bergholm to produce a software method with improved ease of access for plural designers. The combination could be achieved by implementing the software method taught by Rappaport using a central computer components database and transmitting the logical model through the network.

Although Rappaport does not explicitly refer to a operatively connecting the cables of the modeled network, it would be obvious to a person of ordinary skill in the art at the time of Applicant’s invention that the disclosed invention, a network design tool, would be a useful part of deploying the network once it is designed.

In response, Applicants argue primarily that:

Applicant respectfully notes the rejection of claim 25 appears to be based upon limitations not found in claim 21 as presented.

The Examiner respectfully traverses this argument as follows.

Applicants’ response regarding claim 25 does not specifically points out the supposed errors in the Examiner’s action. Further, Applicants’ response regarding claim 25 consists of a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claim patentably distinguishes it from the references. Both of these are required under 37 CFR 1.111(b).

Art Unit: 2123

Although mapping specific claim limitations to the reference is often performed for Applicants' convenience, there is no requirement to do so in the MPEP. Claim 25 appears to present limitations which have been addressed previously or limitations which are readily apparent from the Rappaport reference. While the Examiner's rejection may not conform verbatim to the claim language, the Examiner maintains that the references cited render the claimed invention obvious.

The Examiner respectfully suggests that Applicants' positively identify the limitations that they believe are neither disclosed nor rendered obvious by Rappaport in view of Bergholm. Applicants' arguments have been fully considered but have been found unpersuasive.

5. Claims 13-20 and 28-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport in view of Bergholm, and further in view of Tonelli et al. US Patent No. 5,821,937 hereafter referred to as Tonelli.

Regarding claim 13, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Art Unit: 2123

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not teach a system of computers including a first computer storing application software and second and third computers sharing mirrored project data.

Bergholm teaches a system of computers including a client server architecture including a central server coupled to a plurality of workstations (column 14, lines 14-45). Bergholm teaches that the server stores application software (column 14, lines 57-60). The functionality provided by client server architecture, including synchronization of application data, is regarded as well known in the art.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the software method for designing a network taught by Rappaport with the client server architecture taught by Bergholm to produce a software method with improved ease of access for plural designers. The combination could be achieved by



Art Unit: 2123

implementing the software method taught by Rappaport using a central computer components database and executing the application software remotely.

In response, Applicants argue primarily that:

As cited by the Office Action, in column 14, lines 57-60 Bergholm states that [quotation omitted]. This in no way teaches or suggests the claim 13 limitations of "having a third memory storage device adapted to record second project data, said first and second project data being substantially instantaneously identical."

The Examiner respectfully traverses this argument as follows.

Bergholm in column 14, lines 17-21 reads as follows:

This system is based on a client-server architecture in which a central server is accessed from the client workstations through a local area network. Additional work group servers and their networked client workstations can remotely access the central server.

Thus Bergholm expressly discloses the computer arrangement recited in the claim. The concept of mirroring data between servers is old and known in the art, and for precisely this reason Applicants' clarification of the language in claim 13 overcomes the previous rejections under 35 U.S.C. § 112, second paragraph. A person of ordinary skill in the art would recognize that in order for a second workstation connected through "additional work group servers" to connect to the "central server" to use the operable system disclosed by Bergholm, it would be necessary to mirror the project data between the servers so that the second workstation can receive and operate on the data.

Applicants' arguments have been fully considered but have been found unpersuasive.

Regarding claim 14, Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Art Unit: 2123

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Regarding claim 15, Rappaport does not explicitly teach an optical cable having a buffer with first and second fibers, said fibers having different nominal characteristics, however the rejection formed in the rejection of claim 14 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

Regarding claim 16, Rappaport teaches a software method for designing a network comprising a wireless communication portion (column 5, lines 52-65).

Regarding claim 17, Rappaport teaches a software method for designing a network comprising a detail notes portion adapted to record a detailed layout of a network within an

Art Unit: 2123

office environment, functionally equivalent to a multiple dwelling unit (Figs. 2 and 3; column 4, lines 14-33).

Regarding claim 18, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer

Art Unit: 2123

parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

In response, Applicants argue primarily that:

To combine references under 35 U.S.C. § 103(a), there must be a teaching or suggestion found in the prior art to make the combination. [...] There is nothing in the prior art of record to support the proposed combination of Rappaport with Bergholm under 35 U.S.C. § 103(a). Therefore, the proposed combination of Rappaport [sic] with Bergholm is believed to be improperly made.

The Examiner respectfully traverses Applicants' argument as follows.

MPEP 2143.01 reads as follows:

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998)

The Examiner maintains the previous statement of motivation. While express motivation may be found in the teachings of the prior art, the rejection cites motivation that would be recognized by

Art Unit: 2123

a person of ordinary skill in the art as the nature of the problem to be solved as well as the knowledge of persons of ordinary skill in the art.

Applicants' arguments have been fully considered but have been found unpersuasive.

Regarding claim 19, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer

Art Unit: 2123

parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Rappaport does not explicitly teach an optical cable having a buffer with first and second fibers, said fibers having different nominal characteristics, however the rejection formed in the rejection of claim 14 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

In response, Applicants' arguments make reference to claim 14. Applicants' arguments regarding claim 14 have been fully considered but have been found unpersuasive.

Regarding claim 20, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35);

Calculating power and signal relationships within the communications network (column 7, lines 10-48);

Rappaport teaches a software method for designing a network comprising a wireless communication portion (column 5, lines 52-65); and

Rappaport teaches that one of the network components includes an antenna (column 6, lines 40-54).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer



Art Unit: 2123

parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Claims 28-30 reiterate combinations of limitations found in claims 13, 14, and 16. As Rappaport in view of Bergholm and in view of Tonelli renders claims 13, 14, and 16 unpatentable, the same combination used in those rejections renders the reiteration of those limitations in claims 28-30 unpatentable.

### ***Conclusion***

New grounds of rejection have been entered in this action therefore this action is NON-FINAL.

Art Unit: 2123

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

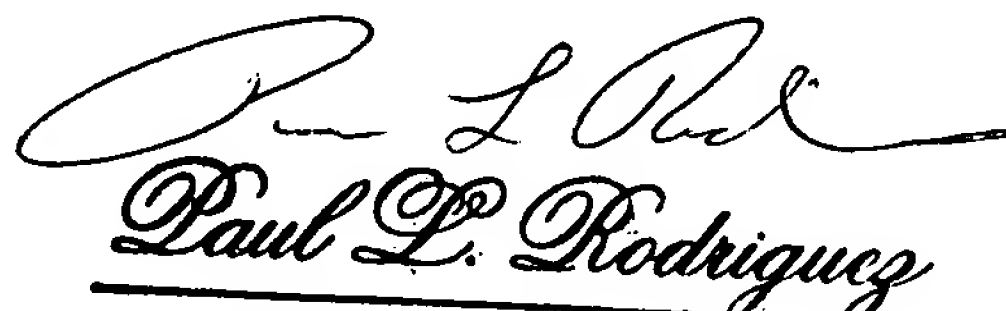
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor  
Examiner  
Art Unit 2123

jsp

  
Paul L. Rodriguez 10/14/05  
Primary Examiner  
Art Unit 2125

***Requirement for Information – 37 CFR 1.105***

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the Examiner has determined is reasonably necessary to the examination of this application:

1. The citation for, the dates initially published and copies of any advertising and promotional literature prepared for any goods or services the claimed subject matter has been embodied in.
2. The publication date of “CADDStar Version 5.0 Help Manual”.
3. The earliest date of offer for sale, public or private, for CADDStar Version 5.0.
4. The publication date of “CADDStar Version 3.81 Help Manual”.
5. The earliest date of offer for sale, public or private, for CADDStar Version 3.81.
6. A “version description document” that identifies new features and/or bug fixes in CADDStar Version 5.0. Typical contents include an inventory of system or component parts, identification of changes incorporated into this version, and installation and operating information unique to the version described (from IEEE 100, Seventh Edition, “version description document”). A promotional “What’s New in Version 5.0” list or its equivalent meets this definition.
7. A “version description document” that identifies new features and/or bug fixes in CADDStar Version 3.81. Typical contents include an inventory of system or component parts, identification of changes incorporated into this version, and installation and operating information unique to the version described (from IEEE 100, Seventh Edition,

Art Unit: 2123

“version description document”). A promotional “What’s New in Version 3.81” list or its equivalent meets this definition.

8. Sales data including revenue due to the “CADDStar” computer software product, regardless of version, from fiscal year 1996 through fiscal year 2000.

9. Sales data including revenue due to the “CADDStar” computer software product, listed according to version, from fiscal year 1996 through fiscal year 2000.

10. An explanation by the individuals identified in 37 CFR 1.56 of the claimed elements in the instant application that are neither disclosed nor suggested in “CADDStar Version 5.0 Help Manual”.

11. An explanation by the individuals identified in 37 CFR 1.56 of the claimed elements in the instant application which are neither disclosed nor suggested in “CADDStar Version 3.81 Help Manual”.

12. An index and table of contents for “CADDStar Version 5.0 Help Manual”.

13. An index and table of contents for “CADDStar Version 3.81 Help Manual”.

This information is relevant to the question of patentability to resolve the question of whether claimed invention is unpatentable as the result of an on-sale bar under 35 U.S.C. § 102(b). Evidence submitted by Applicants and discovered by the Examiner suggest that an on-sale bar exists. The information required above should resolve the question of an on-sale bar and significantly further prosecution.

Art Unit: 2123

**The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement.** This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

**The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56.** Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

**This requirement is subject to the provisions of 47 CFR 1.134, 1.135, and 1.136 and has a shortened statutory period of 2 months.** EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a). Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

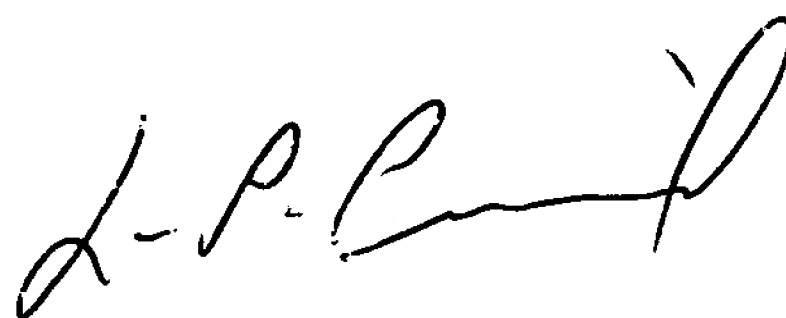
Art Unit: 2123

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor  
Examiner  
Art Unit 2123

jsp



**LEO PICARD**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**